

Amendments to the Abstract:

Please replace paragraph (57) **Abstract** with the following:

--Multiple public/private key pairs of varying levels of security are used to provide a high level of security while still allowing fast processing of encrypted information. The lower-security level includes keys ~~which~~ that are small in length, ~~which~~ that are changed relatively often, and ~~which~~ that require less or fewer resources to implement their functions (130), (134). When it is required to change key pairs of low security, a key pair at a higher security level (~~i.e.~~, i.e., longer length keys) than the lower-security level keys is used to transfer the new lower-security public keys to devices using those keys. The higher-security keys can, in turn, be changed at a frequency lower than the lower-security keys. The higher-security keys require a higher level of resources to perform their coding operations (120), (124). This approach of using keys of escalating levels of security to replace lower-security keys, where the higher-security keys require more resources, are more secure, and are replaced less often than the lower-security keys, can be followed as many times as is desired to create a hierarchy of public key uses with the result that the lower-security operations can be performed quickly while the overall system security is high.--